M4A785TD-M EVO

- 140w CPU support
- 128MB SidePort Memory
- GPU NOS
- ASUS EPU
- Turbo Key

CPU, Chipset and Graphics Features

AMD® Phenom™ II/Athlon™ II/ Sempron™ 100 Series Processors (socket AM3)

This motherboard supports AMD® Socket AM3 multi-core processors with unique L3 cache and delivers better overclocking capabilities with less power consumption. It features dual-channel DDR3 1333 memory support and accelerates data transfer rate up to 5200MT/s via HyperTransport™ 3.0 based system bus. This motherboard also supports AMD® CPUs in the new 45nm manufacturing process.

AMD® 785G / SB710

AMD® 785G / SB710 Chipset is designed to support up to 5200MT/s HyperTransport™ 3.0 (HT3.0) interface speed and PCI Express™ 2.0 x 16 graphics. It is optimized with AMD´s latest AM3 and multi-core CPUs to provide excellent system performance and overclocking capabilities.

DDR3 1800(O.C.) support

The motherboard supports DDR3 memory that features data transfer rates of 1800+(O.C.)/1600(O.C.)/1333/1066/800 MHz to meet the higher bandwidth requirements of the latest operation system, 3D graphics, multimedia, and Internet applications. The dual-channel DDR3 architecture doubles the bandwidth of your system memory to boost system performance, eliminating bottlenecks with peak bandwidths of up to 25.6 GB/s. Furthermore, the supply voltage for the memory is reduced from 1.8 V for DDR2 to just 1.5 V for DDR3. This voltage reduction limits the power consumption and heat generation of DDR3 which makes it an ideal memory solution.

Hybrid CrossFireX™ Support

Boosted Performance with onboard GPU and discrete graphics card
ATI Hybrid CrossFireX™ technology is a unique hybrid multi-GPU technology. It takes your gaming experience to the next level boosting PC performance by enabling the chipset's integrated graphics processor and a discrete GPU to operate simultaneously with combined output for blisteringly-fast frame rates unleashing the graphics performance * Visit www.amd.com for the Hybrid CrossFireX selected GPUs.

SidePort Memory

This motherboard features SidePort Memory, an individual onboard DDR3 memory serving as memory buffer for integrated graphics. With low CPU usage, the SidePort Memory provides integrated graphics acceleration and effectively boosts graphics performance.

PCIe 2.0 support

This motherboard supports the latest PCIe 2.0 devices for double speed and bandwidth which enhances system performance.

HDMI Support

Enjoy Full HD 1080p Multimedia Home-Theater Entertainment
High-Definition Multimedia Interface (HDMI) is a set of digital video standards that delivers multi-channel audio and uncompressed digital video for full HD 1080p visuals through a single cable. Supporting HDCP copy protection such as HD DVD and Blu-ray Discs, HDMI provides you with the highest-quality home theater experience.
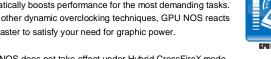
ASUS Green Design

EPU

The ASUS EPU (Energy Processing Unit) provides total system power management by detecting current PC loadings and intelligently moderating power in real-time. It automatically provides the most appropriate power usage for the CPU, VGA card, hard drives, and CPU/chassis fans- helping save power and money!

ASUS Overclocking Tools

GPU NOS

GPU NOS technology intelligently detects graphic loading and automatically boosts performance for the most demanding tasks. Unlike other dynamic overclocking techniques, GPU NOS reacts much faster to satisfy your need for graphic power.

*GPU NOS does not take effect under Hybrid CrossFireX mode.

Turbo Key

ASUS Turbo Key allows the user to turn the PC power button into an overclocking button. After the easy setup, Turbo Key can boost performances without interrupting ongoing work or games - with just one touch!!

Other ASUS Features

Express Gate

Taking only 5 seconds to bootup, Express Gate is the one-stop gateway to instant fun! It´s a unique motherboard built-in OS. You can utilize the most popular Instant Messengers (IM) like MSN, Skype, Google talk, QQ, and Yahoo! Messenger to keep in touch with friends, or quickly check on the weather and e-mails just before leaving your house. What´s more, the user-friendly picture manager lets you view your pictures without entering Windows at anytime! * The actual boot time is subject to hardware configurations and product models.

CrashFree BIOS 3

Simply restore corrupted BIOS data from USB flash disk
The ASUS CrashFree BIOS 3 allows users to restore corrupted BIOS data from a USB flash disk containing the BIOS file. This utility saves users the cost and hassle of buying a replacement BIOS chip.

EZ Flash2

Simply update BIOS from a USB flash disk before entering the OS
EZ Flash is a user-friendly BIOS update utility. Simply press the pre-defined hotkey to launch this tool and update BIOS from a floppy disk before entering the OS.

ASUS Q-Fan

ASUS Q-Fan technology intelligently adjusts CPU fan speeds according to system loading to ensure quiet, cool and efficient operation.

Uses 100% All High-quality Conductive Polymer Capacitors!

This motherboard uses all high-quality conductive polymer capacitors onboard for durability, improved lifespan, and enhanced thermal capacity.

MyLogo2

Personalize your system with customizable boot logo
You can convert your favorite photo into a 256-color boot logo for a more colorful and vivid image on your screen.

Industry Standard

SATA on the Go

The motherboard supports hard drives based on the Serial ATA (SATA) 3Gb/s storage specification, delivering enhanced scalability and doubling the bus bandwidth for high-speed data retrieval and saves. The external SATA port located at the back I/O provides smart setup and hot-plug functions. Easily backup photos, videos and other entertainment contents on external devices.

High Definition Audio

Enjoy high-end sound system on your PC!
The onboard 8-channel HD audio (High Definition Audio, previously codenamed Azalia) CODEC enables high-quality 192KHz/24-bit audio output, jack-sensing feature, retasking functions and multi-streaming technology that simultaneously sends different audio streams to different destinations. You can now talk to your partners on the headphone while playing a multi-channel network games. All of these are done on one computer.

S/PDIF-out on Back I/O Port

This motherboard provides convenient connectivity to external home theater audio systems via coaxial and optical S/PDIF-out (SONY-PHILIPS Digital Interface) jacks. It allows to transfer digital audio without converting to analog format and keeps the best signal quality.

IEEE 1394a interface

IEEE 1394a interface provides high speed digital interface for audio/video appliances such as digital television, digital video camcorders, storage peripherals & other PC portable devices.

RoHS

GreenASUS

The motherboard and its packaging comply with the European Union´s Restriction on the use of Hazardous Substances (RoHS). This is in line with the ASUS vision of creating environment-friendly and recyclable products and packaging to safeguard consumers´ health while minimizing the impact on the environment.

Back Panel I/O Ports

Specifications

CPU	AMD Socket AM3 ;Phenom™II/Athlon™II/Sempron™ 100 Series Processors
Chipset	AMD 785G/SB710
System Bus	Up to 5200 MT/s ; HyperTransport™ 3.0
Memory	4 x DIMM, Max. 16 GB, DDR3 1800(O.C.)/1600(O.C.)/1333/1066 ECC,Non-ECC,Un-buffered Memory Dual Channel memory architecture Please refer to www.asus.com or user manual for Memory QVL. *Due to OS limitation, when installing total memory of 4GB capacity or more, Windows® 32-bit operation system may only recognize less than 3GB. Install a 64-bit WindowsWindows® OS when you want to install 4GB or more memory on the motherboard.
Expansion Slots	1 x PCIe 2.0 x16 1 x PCIe x1 2 x PCI
VGA	Integrated ATI Radeon™ HD 4200 GPU SidePort Memory - onboard 128MB DDR3 1333 memory - Supports HDMI™ Technology with max. resolution up to 1920 x 1200 (1080P) - Supports Dual-link DVI with max. resolution up to 2560x1600 @60Hz - Supports D-Sub with max. resolution up to 2560x1440 @75Hz - Hybrid CrossFireX™ Support - Dual independent displays support with HDMI / DVI and D-Sub - Supports Microsoft® DirectX 10.1, OpenGL 2.0, Shader Model 4.1 - Hardware Decode Acceleration for H.264, VC-1, and MPEG-2 - Maximum shared memory of 512MB *Refer to www.amd.com for the Hybrid CrossFireX selected GPUs.
Storage	**SB710 Chipset** 1 xUltraDMA 133/100/66 for up to 2 PATA devices 5 xSATA 3 Gb/s ports Support RAID 0,1,10,JBOD 1 x eSATA 3Gb/s port
LAN	RTL8112L PCIe Gigabit LAN controller featuring AI NET 2
Audio	VT1708S 8-Channel High Definition Audio CODEC - Supports Jack-Detection, Multi-Streaming, and Front Panel Jack-Retasking - Optical S/PDIF Out ports at back I/O
IEEE 1394	JMB381 controller supports 2 x 1394a ports (1 at mid-board; 1 at back panel)
USB	12 USB 2.0 ports (6 ports at mid-board, 6 ports at back panel)
ASUS Unique Features	**ASUS EZ DIY** **ASUS Green Design:** - EPU-4 Engine **Express Gate** **ASUS EZ DIY:** - ASUS Q-Fan - ASUS CrashFree BIOS 3 - ASUS AI NET2 - ASUS MyLogo 2 - ASUS EZ Flash 2
Overclocking Features	**Intelligent overclocking tools** - GPU NOS (*GPU NOS does not take effect under Hybrid CrossFireX mode.) - Turbo Key **SFS (Stepless Frequency Selection)** - FSB tuning from 200MHz up to 550MHz at 1MHz increment - PCI Express frequency tuning from 100MHz up to 150MHz at 1MHz increment **Overclocking Protection** - ASUS C.P.R.(CPU Parameter Recall)
Special Features	100% All High-quality Conductive Polymer Capacitors! AMD OverDrive Support* *Advanced cooling system is required when advanced overclock functions of AMD OverDrive are enabled.
Back Panel I/O Ports	1 x PS/2 Keyboard/Mouse Combo port 1 x DVI 1 x D-Sub

	1 x HDMI
	1 x External SATA
	1 x S/PDIF Out (Optical)
	1 x IEEE 1394a
	1 x LAN(RJ45) port
	6 x USB 2.0/1.1
	8 -Channel Audio I/O
Internal I/O Connectors	3 x USB connectors (6 ports)
	1 x IDE connector
	5 x SATA connectors
	1 x IEEE 1394a connector
	1 x CPU Fan connector
	1 x Chassis Fan connector
	1 x Power Fan connector
	1 x S/PDIF Out connector
	Front panel audio connector
	1 x COM connector
	1 x LPT connector
	24-pin ATX Power connector
	4-pin ATX 12V Power connector
BIOS	8 Mb Flash ROM AMI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.5, ACPI 2.0a
Manageability	WOL by PME,WOR by PME,WOR by Ring,Chasis Intrusion,PXE
Accessories	User's manual
	1 x I/O Shield
	1 x UltraDMA 133/100/66 cable
	2 x SATA cable
Support Disc	Drivers
	ASUS PC Probe II
	Anti-virus software (OEM version)
	ASUS Update
	AMD OverDrive Utility (AOD)
Form Factor	uATX Form Factor
	9.6 inch x 9.6 inch (24.4 cm x 24.4 cm)